is plain that it is not possible to remove the prostate as a whole.

But it is somewhat confusing to find in the same letter these statements: "If Mr. Freyer will take the trouble to examine the specimens in the Leeds Pathological Museum, he will see that all the members of the staff have been performing enucleation of the prostate for years." Clearly one or other of these statements must be incorrect. Mr. Bruce Clarke has on "several occasions removed the whole prostate." Mr. James H. Nicoll says: "I have in my possession several complete prostates which I have removed by operation." Mr. A. R. Anderson: "For years past, when operating for prostatic enlargement, I have extirpated the gland completely." Samuel Alexander of New York,³ in describing his operation through the perineum, says: "The fibrous sheath of the prostate covering its posterior and inferior surface is broken into by the finger and the capsule entered: the entire prostate is shelled out from within its sheath by digital dissection." A. B. Johnson, J. Rogers, and Willie Meyer also declare that they have removed "the entire prostate."

There can be no doubt about the meaning of these phrases; but do they really represent what has been done, and have all these gentlemen and many others who need not be quoted been under a delusion as to what they did accomplish?

On the other hand, there is a strong body of opinion that removal of the entire prostate is impossible. Belfield is obviously in some doubt, for in a footnote⁴ he says: "The obvious etymological inaccuracy of this term (prostatectomy) is still of slight moment, since the real 'prostatectomy'—extirpation of the entire prostate—is as yet a rare experiment." Cuthbert Wallace⁵ says that the facts "leave no reasonable doubt that the so-called total prostatectomy is nothing more than the removal of adenomatous masses." Mr. E. Taylor is of opinion that Mr. Freyer has "done nothing more than remove encapsuled prostatic growths. A total extirpation would of necessity involve the removal of the prostatic urethra, to which there adhered in these cases a varying amount of prostatic tissue and which remained connected with the common ejaculatory ducts."⁶ Mr. Buckston Browne is "satisfied that it is impossible to entirely remove the prostate and at the same time leave intact the prostatic veins and capsule, urethra, and seminal ducts."⁷ To this side, also, must be added the testimony of Mr. Mayo Robson, who declares extirpation of the prostate, including its "capsule," to be impracticable from an anatomical point of view.⁸

It will be seen that these propositions are somewhat abstract, for in no case is it stated that, so far as the result of an operation is concerned, a subsequent examination of the parts has been made. This will no doubt be done in some fatal case in which the entire prostate is supposed to have been removed, and it will then be known whether this has been really effected. The evidence as to the impossibility of removing the gland is based upon the inspection of cases in the *post-mortem* room, no operation having been attempted while the individual was living. Sometimes preserved specimens have been examined, and sometimes normal prostates. Some experimenters have declared that their efforts to extirpate the gland have entirely failed, others have succeeded⁹; and Belfield quotes Vignard as declaring that experimenting on the cadaver he has "in six out of ten cases enucleated the entire prostate—hypertrophied or otherwise—with reasonable ease."¹⁰ The entanglement is not much cleared by these reports. It may be observed, however, that so far as facility of removal goes, we are not comparing like conditions. A normal prostate would certainly be more difficult to remove than an enlarged one, even in the dead body; and certainly we do not find in hardened jar specimens the conditions met with in dealing with a prostatic obstruction in the living.

The conflict of testimony is not a little perplexing. The opposition is based mainly upon the relation of the normal parts, but it is necessary to take into consideration also the influence of pathological changes which may make possible to the surgeon what is impossible in the view of the anatomist. Some of the opponents lay down certain conditions which they hold must attend extirpation of the entire prostate, namely, the concurrent removal of the seminal

ducts and the prostatic urethra. Accepting this as correct then, it may be truly claimed that the prostate can be completely enucleated, because in several reported cases the urethra and ducts have been so removed, and I understand that Mr. Freyer has deliberately taken away the urethra in some instances without detriment to the patients.

The controversy, however, has not much practical interest beyond emphasizing the importance of accuracy in the use of terms and in the description of operative procedures. To the patient, at all events, it is not of much moment whether we really do a prostatectomy or only remove adenomata. What he suffers from is the mechanical obstruction caused by the tumour, and he will not worry about fine distinctions of term if the surgeon can restore to him the functional ease of former days. In my own case I removed two adenomatous tumours, leaving behind, I believe, a layer of prostatic tissue representing the gland proper, but squeezed out of recognition by the pressure of the pathological growth. I have examined my patient quite recently, and nothing can be felt in the rectum to indicate a prostate at all, while the bladder function is as good as it was twenty years ago.

But whatever difference of view there may be upon the points to which I have alluded, there ought to be none upon the fact that Mr. Freyer has established the operation upon a stronger and wider basis than it has ever occupied, and that his advocacy marks a distinct advance in the surgery of the prostate.

REFERENCES.

- ¹ Sir Henry Thompson, *Diseases of the Prostate*, p. 3. ² BRITISH MEDICAL JOURNAL, March 29th, 1902, p. 765. ³ *Medical Record*, December, 1896. ⁴ *Internat. Journal of the Medical Sciences*, 1890, vol. c, p. 445. ⁵ BRITISH MEDICAL JOURNAL, March 29th, 1902, p. 774. ⁶ *Ibid.*, p. 774. ⁷ BRITISH MEDICAL JOURNAL, August 17th, 1901, p. 434. ⁸ *Ibid.*, August 10th, 1901, p. 383. ⁹ Roberts, BRITISH MEDICAL JOURNAL, March 29th, 1902, p. 769. ¹⁰ *Internat. Journal of the Medical Sciences*, 1890, vol. c, p. 449.

CHRONIC HYPERTROPHY OF THE PROSTATE: FREYER'S OPERATION: RECOVERY.

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CHRONIC enlargement of the prostate is rare in Southern India as compared with its prevalence in Europe. But that it does occur amongst Southern Indians is undoubted, and two or three cases of partial extirpation with great relief to the sufferers are on record.

I do not recollect reading of a case of total extirpation of the prostate in India, though doubtless the operation has been performed. The extremely unsatisfactory methods of dealing with chronic enlargements of the prostate hitherto in vogue have doubtless deterred most of us from attempts at a radical cure by extirpation. My own solitary case of partial extirpation died some weeks after the operation, having gained very little benefit from the operation.

The new operation recently devised by Freyer has revived the subject of radical cure of this affection, and his success seems to open up great possibilities for the future. I have called Freyer's operation a new one, notwithstanding the recent discussions in the BRITISH MEDICAL JOURNAL on the subject. I think any one who has performed his operation would do so. I have gone through the literature of the radical cure of the chronic enlargement of the prostate, all, I think, except that which is supposed to contain the statement that the operation now performed by Freyer was done years ago by a French surgeon. I shall be glad if any reader of this note will point out where the description of the operation by this French surgeon is to be found. Till I see this description I must agree with those who believe that Freyer's procedure is a new one.

As this operation is still, so to speak, under trial, I think it would be well if every surgeon who undertakes it published his cases, so that some idea of the mortality attending it may be formed. The operation is itself extremely simple, the removal of the gland is thorough; nevertheless, if it is accompanied by as high a mortality as the old method it will have to be set aside, and surgeons must still cast about for a method of treating this disease, a disease fraught with such misery to its victims. For this reason I now publish a case, in which Freyer's operation was performed by me.

History.—The patient was a male Hindu, aged 60, a sturdy farmer. Twenty years before admission to hospital he had had gonorrhoea. Three years ago he was in the Bowring Hospital, Bangalore, for inability to pass his urine freely, but got no better. He was admitted under my care into the Victoria Hospital, Bangalore, on January 4th, 1902, in great distress. He said that for the past twelve months he had to pass water every half-hour in the knee-elbow position, with much straining.

State on Examination.—No stricture was found, but the prostate was considerably enlarged. Residual cloudy urine measured 4 oz. Cystoscopic examination showed that the lateral lobes of the prostate projected into the bladder with a groove between them, while from the lower commissure of this groove sprang a pedunculated globular tumour, about half an inch in diameter, which moved about freely in the water with which the bladder was distended.

Operation.—On January 18th I performed the enucleation. The bladder was opened without difficulty, but I noted that the vesical incision bled more than usual. I then caught up the mucous membrane on the ridge of the right lobe, and snipped off a fold, so as to leave a button-hole large enough to admit the tip of the forefinger. Through this opening, which proved very dilatible, I enucleated first the right and then the left lobe, using the left forefinger only as the enucleator, while the right fingers in the rectum assisted. The only difficulty experienced was when the anterior or upper ends of the prostate near the triangular ligament came to be enucleated; the finger seemed barely long enough to accomplish this part of the process. The small tumour seen with cystoscope came away with the right lobe. The bleeding by now had become very free. I washed out the bladder with hot boric lotion, inserted a drainage tube through the suprapubic opening, washed out the bladder again as some bleeding seemed still to be going on, and sent the patient to bed. There was no shock, and the operation lasted less than half an hour. About an hour or so afterwards, when I was engaged on another operation, I was sent for, as haemorrhage had again set in. I found blood flowing pretty freely from the wound, but on inserting my finger into the bladder wound, and pulling up the viscus, the bleeding stopped. I then inserted a Fergusson's speculum and examined the site of the enucleation wound. It was not bleeding. The blood was coming up slowly outside the speculum from the anterior aspect of the suprapubic wound on the bladder. I tied in a large-sized (1 in. diameter) Fergusson's speculum, which was firmly grasped by the bladder wound, and the bleeding at once ceased. Through this speculum a clear view of the base of the bladder was obtainable. The patient lost a lot of blood, and was quite blanched, but soon rallied. I removed the speculum in six hours, and reinserted the drainage tube.

Progress.—The bladder was irrigated daily with boric lotion for a fortnight or so. The wound was completely closed by February 11th. By February 26th he could retain his urine for four hours. There was $\frac{1}{2}$ oz. of clear residual urine. When the lobes of the enucleated prostate were placed in position the transverse measurement was $2\frac{1}{2}$ in. The weight was 1 oz. 5 dr. and 35 gr.

This prostate was, therefore, not a very much enlarged organ; still, it rendered life a burden, and the result of the operation was most gratifying, the patient leaving hospital for his duties in the fields strong and happy. It should be a rule never to allow these patients to leave the table till bleeding from every source has ceased.

The bleeding in this case had nothing to do with the enucleation. It was from the enormously thickened wall of the bladder at the anterior or lower extremity of the suprapubic wound. In another case I should be inclined to control the margins of this wound by passing a thick silk ligature through them, so that they could at any time be readily drawn to the surface and their condition examined.

I examined the prostatic site per rectum before the patient was discharged from hospital. There was quite a mass of indurated tissue. It felt, in fact, as if the prostate were still there, but mis-shapen. That it was not there, nor any tissue of any considerable thickness, was quite certain after the enucleation was completed, for with one finger in the bladder and the other in the rectum I palpated the site most carefully. I suppose the thickening I have described as felt by rectum just before the discharge was merely cicatricial tissue.

FURTHER REMARKS ON MYASTHENIA.

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To the three cases of myasthenia and ophthalmoplegia published in the *BRITISH MEDICAL JOURNAL* for May 24th, I am able to add a fourth. The patient was first seen more than two years ago, but I have been able to make a careful examination since the preceding article has been in print.

CASE IV.

A girl, now aged 14, was 12 when I first saw her. Her family is "nervous," but free from definite disease, either insanity or epilepsy. Healthy in early childhood, the symptoms of weakness began gradually at about 8 years of age, and were ascribed to an attack of influenza some time before,

but without evidence of a causal relation. The symptoms had slowly increased up to the time I first saw her, and have since undergone little change.

She is a tall girl, with conspicuous ptosis and consequent backward carriage of the head. The edge of the right lid is opposite the middle of the pupil, of the left rather lower. There is no elevation of the lids voluntarily or on attempting to look up. The orbicularis on each side contracts well and firmly (two years before the contraction of the right was less strong than the left). The frontales act well. The lower part of the face is much weaker on the right side than on the left, but there is no "nasal smile." The naso-labial furrow curves round the corner of the mouth in the same way on each side, but is much slighter on the right. The lips seem a little weak, but she can just whistle with an effort. Articulation is curiously slow and laboured; the only consonant distinctly imperfect is *b*. The tongue is protruded straight and appears normal. The voice is nasal; the palate raised but little, and liquids, when being swallowed, have occasionally regurgitated through the nose during the last six months. There has been throughout slight weakness of the adductors of the vocal cords (Sir F. Semon). The masseters contract firmly, but the right distinctly less than the left, just as the right side of the face moves less. No evidence of exhaustibility can be obtained, but she habitually masticates imperfectly.

The movement of the eyes upwards is defective. Two years ago hardly any movement was perceived, and still there is very little in the right, and in the left only about a quarter of the normal. Movement downwards is fair, but hardly normal. The same is the case with each of the lateral movements, and they are the same in the two eyes. In spite of the fair action of each internal rectus with the opposite external rectus, convergence is absent. On an attempt, the right eye remains in the mid position, and there is only a doubtful, very slight movement of the left eye. Yet accommodation seems good; she can read the smallest test type at 9 inches and there is not definite myopia. The pupils are large and act well to light. The discs are normal.

The hands are very weak. The grasp is R. 2, L. 0 K°. In each the fingers can only be quite extended when the hand is in a line with the forearm, not when the wrist is over-extended (just as in Case 1). The general weakness of the hand is greater on the left side, as the grasp shows, and the muscles on this side are generally thinner than on the right, without definite local wasting. Excitability by the isolated faradic shocks is considerably less in the left hand than on the right. (The girl's distressing nervous sensitiveness made impossible any further electrical testing, or an attempt to obtain the myasthenic reaction.)

There is no distinct weakness of the legs; she can walk two or three miles, and has a firm seat on horseback. The knee-jerks are good and equal, but quickly diminish on repetition, until there is hardly any movement on the tenth successive tap. After a few seconds' rest it is as energetic as at first.

She has lately had two convulsive attacks at eight weeks interval, commencing with deviation of the head and eyes to the left, followed by general tonic and clonic spasm, equal on the two sides. The onset of each was attended by an indescribable feeling in the head and a visual sensation of a flame-like light in front of whatever she was looking at. During the interval she has had some typical minor attacks consisting in a momentary sense of strangeness and mental confusion.

On the whole, there has been little change during the last two years. An attempt was made to give strychnine by hypodermic injection, and it seemed to do good, but the injections caused so much emotional distress that they were discontinued.

REMARKS.

The case is of interest as presenting, like the others, ophthalmoplegia in addition to fairly typical symptoms of myasthenia, and in the fact that the peculiar "nasal smile" was not present. It is also of interest as one of those in which there is a marked difference between the two sides, especially in the face and hands, and in the association of slight atrophy of the muscles, and a diminution of electrical excitability, with the greater weakness of the left hand.

The impaired movement of the eyes resembles that in the